

SOLE™ Compact laser light engines with up to 6 wavelengths

The SOLE laser light engines combine up to six wavelengths in a compact and rugged design. Wavelengths between 375nm and 830nm and optical output powers up to 150mW per laser line are possible. Especially designed for today's demanding applications in biotechnology like confocal microscopy or flow cytometry can be covered. High-speed analogue and digital modulation as well as fast switching between the individual wavelengths is realized by Omicron's proprietary DEEPSTAR® technology. All SOLE™ light engines offer single-mode polarization maintaining fiber coupling or free-space light output with high stability.



SOLE™ key features:

- Up to 6 wavelengths beam-combined in one compact housing
- 18 different wavelengths available
- Direct modulation and fast switching between wavelengths
- Single-mode, polarization maintaining fiber coupling with customizable fiber outputs
- Vibration isolated
- USB 2.0 control interface
- Windows™ based laser control software included.
- OEM versions available

SOLE-3 front view:



SOLE-3 rear view:



SOLE™ - Specifications:

Available models: SOLE-3 - 3-Channel light engine with up to 3 wavelengths
SOLE-6 - 6-Channel light engine with up to 6 wavelengths

Available Wavelengths and powers (internal laser power):
375nm / 20mW
405nm / 60mW, 120mW
445nm / 50mW
457nm / 25mW, 50mW
473nm / 20mW
488nm / 20mW, 60mW
515nm / 25mW, 50mW, 100mW
532nm / 25mW, 50mW, 100mW, 150mW
561nm / 25mW, 50mW, 75mW, 100mW, 150mW
594nm / 25mW, 50mW, 100mW
638nm / 40mW
642nm / 140mW
660nm / 130mW
685nm / 50mW
705nm / 40mW
730nm / 40mW
808nm / 140mW
830nm / 140mW

Fiber coupling: Type: Single-mode, polarization maintaining or Multi-mode
Fiber output: FC/APC, FC/PC and collimated outputs on customers demand

Free emission: beam diameter 0.7mm 1/e², others available on request

Modulation capabilities:

Diode lasers:	digital modulation:	> 180MHz
	analog modulation:	> 5MHz
	electronic shutter:	> 300kHz
DPSS Lasers:	digital modulation:	> 30MHz
	analog modulation:	> 5MHz
	electronic shutter:	> 300kHz
Extinction ratio:	digital modulation:	> 500 : 1
	analog modulation:	> 1000 : 1
	electronic shutter:	> 2.500.000 : 1
Input signals:	digital modulation:	TTL or 0...1V/50 Ohm
	analog modulation:	0...10V or 0...1V/50 Ohm
	electronic shutter:	TTL

Control interface: Type: USB2.0 / RS-232

Laser control software: Windows™ based laser control software

Supply voltage: Mains: 90...245VAC, 50/60Hz

Mechanical size:

SOLE-3	19" rack type housing with 2 height units L x W x H: 480mm x 484mm x 88mm (without fiber coupler)
SOLE-6	19" rack type housing with 3 height units L x W x H: 480mm x 484mm x 132mm (without fiber coupler)

For more information please contact:



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